

AMENDMENTSIn the Claims:

Please amend Claims as follows:

Claims 1-39 (Canceled)

40. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent identical over the full length to of a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, ~~and~~ SEQ ID NO:28, ~~SEQ ID NO:30, and SEQ ID NO:33~~, wherein the isolated nucleic acid molecule encodes a protein that elicits an immune response against a ~~naturally-occurring canine or feline B7-2 protein~~ having the amino acid sequence of SEQ ID NO:7, SEQ ID NO:17 or SEQ ID NO:28 or wherein said encoded protein, in conjunction with engagement of a T cell receptor with a major histocompatibility molecule complexed with a peptide, stimulates T cell proliferation; and

(b) a nucleic acid molecule fully complementary to the nucleic acid molecule of (a).

41. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence that is at least about 95% identical over the full length of SEQ ID NO:33, wherein the isolated nucleic acid molecule encodes a protein that elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:34 or wherein said encoded protein, in conjunction with engagement of a T cell receptor with a major histocompatibility molecule complexed with a peptide, stimulates T cell proliferation; ~~that encodes a naturally-occurring soluble canine or feline B7-2 protein; and~~

(b) a nucleic acid molecule comprising a nucleic acid sequence encoding a protein that is at least about 95% identical over the full-length of SEQ ID NO:34, wherein said encoded protein elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:34 or wherein said encoded protein, in conjunction with engagement of a T cell

receptor with a major histocompatibility molecule complexed with a peptide, stimulates T cell proliferation;

(c) a nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO:30; and

(d) a nucleic acid molecule fully complementary to the nucleic acid molecule of (a), (b) or (c).

42. (Currently amended) The isolated nucleic acid molecule of Claim 40, wherein said nucleic acid molecule comprises a nucleic acid sequence is selected from the group consisting of:

(a) SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, ~~SEQ ID NO:30, SEQ ID NO:33;~~ and

(b) a nucleic acid molecule sequence fully complementary to the nucleic acid sequence molecule of (a).

43. (Currently amended) The isolated nucleic acid molecule of Claim 41, wherein said nucleic acid molecule comprises a nucleic acid sequence is selected from the group consisting of:

~~SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28,~~

(a) SEQ ID NO:30, and SEQ ID NO:33; and

(b) a nucleic acid molecule sequence fully complementary to the nucleic acid molecule sequence of (a).

44. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence encoding a B7-2 protein that is at least about 95 percent% identical to over the full length of an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17, and SEQ ID NO:26; ~~SEQ ID NO:31 and SEQ ID NO:34,~~ wherein said encoded B7-2 protein elicits an immune response against a naturally-occurring-canine or feline-B7-2 protein having the amino acid sequence of SEQ ID NO:7, SEQ ID NO:17 or SEQ ID NO:28 or wherein said encoded B7-2

protein, in conjunction with engagement of a T cell receptor with a major histocompatibility molecule complexed with a peptide, stimulates T cell proliferation; and

(b) a nucleic acid molecule fully complimentary to the nucleic acid molecule of (a).

45. (Currently amended) The isolated nucleic acid molecule of Claim 44, wherein said encoded B7-2 protein has an amino acid sequence is selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26, SEQ ID NO:31 and SEQ ID NO:34

46. (Currently amended) ~~An~~ The isolated nucleic acid molecule of Claim 41, comprising ~~an allelic variant of the nucleic acid molecule of Claims 40-45, wherein said variant nucleic acid molecule comprises a nucleic acid sequence encoding-encodes a protein that elicits an immune response against a naturally-occurring canine or feline B7-2 protein or stimulates T cell proliferation- having the amino acid sequence of SEQ ID NO:31 or SEQ ID NO:34.~~

47. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) an isolated nucleic acid molecule consisting of a fragment of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; or SEQ ID NO:28; SEQ ID NO:30 or SEQ ID NO:33, wherein said fragment is at least greater than about 42 50 nucleotides of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; or SEQ ID NO:28, SEQ ID NO:30 or SEQ ID NO:33; and,

(b) a nucleic acid molecule fully complementary to the nucleic acid molecule of (a).

48. (Canceled)

49. (Canceled)

50. (Previously presented) A composition comprising the isolated nucleic acid molecule as specified in any one of Claims 40-49 47 and an excipient.

51. (Currently amended) A method to produce a canine or feline B7-2 protein, said method comprising culturing a cell capable of expressing said B7-2 protein, said B7-2 protein being encoded by ~~a nucleic acid molecule selected from the group consisting of:~~ a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent% identical over the full length ~~to~~ of a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; and SEQ ID NO:28, wherein said encoded protein elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:7, SEQ ID NO:17 or SEQ ID NO:28 or wherein said encoded protein, in conjunction with engagement of a T cell receptor with a major histocompatibility molecule complexed with a peptide, stimulates T-cell proliferation, SEQ ID NO:30, and SEQ ID NO:33; and ~~a nucleic acid molecule that encodes a naturally occurring soluble canine or feline B7-2 protein.~~

52. (Currently amended) The method of Claim 51, wherein said nucleic acid molecule encodes a B7-2 protein that is at least about 95 percent% identical over the full length of an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26; ~~SEQ ID NO:31 and SEQ ID NO:34.~~

53. (Currently amended) The method of Claim ~~50~~ 51, wherein said nucleic acid molecule is comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; and SEQ ID NO:28; ~~SEQ ID NO:30 and SEQ ID NO:33.~~

54. (Currently amended) The method of Claim ~~50~~ 51, wherein said nucleic acid molecule comprises a nucleic acid sequence that encodes a protein having an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26; ~~SEQ ID NO:31 and SEQ ID NO:34.~~

55. (Currently amended) ~~The A method of Claim 50, wherein the nucleic acid molecule comprises an allelic variant of the nucleic acid molecule of Claims 40-49, wherein said nucleic acid molecule encodes a protein that elicits an immune response against a naturally-~~

occurring to produce a canine or feline B7-2 protein or stimulates T-cell proliferation said method comprising:

- (a) culturing a cell comprising the isolated nucleic acid molecule of Claim 41,  
wherein said cell is capable of expressing said B7-2 protein; and
- (b) recovering said canine or feline B7-2 protein.

56. (Currently amended) A method to produce a canine or feline B7-2 peptide, said method comprising culturing a cell capable of expressing said B7-2 peptide, said B7-2 peptide being encoded by a nucleic acid molecule consisting of a fragment of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, and SEQ ID NO:28, ~~SEQ ID NO:30 or SEQ ID NO:33~~, wherein said fragment is at least greater than about 12 50 nucleotides of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, and SEQ ID NO:28, ~~SEQ ID NO:30 or SEQ ID NO:33~~.

57. (Canceled)

58. (Canceled)

59. (Previously presented) A recombinant molecule comprising a nucleic acid molecule sequence as set forth in any one of Claims 40-49 47 operatively linked to a transcription control sequence.

60. (Previously presented) A recombinant virus comprising a nucleic acid molecule as set forth in any one of Claims 40-49 47.

61. (Previously presented) A recombinant cell comprising a nucleic acid molecule as set forth in any one of Claims 40-49 47.